

4 key features of Exinda Network Orchestrator

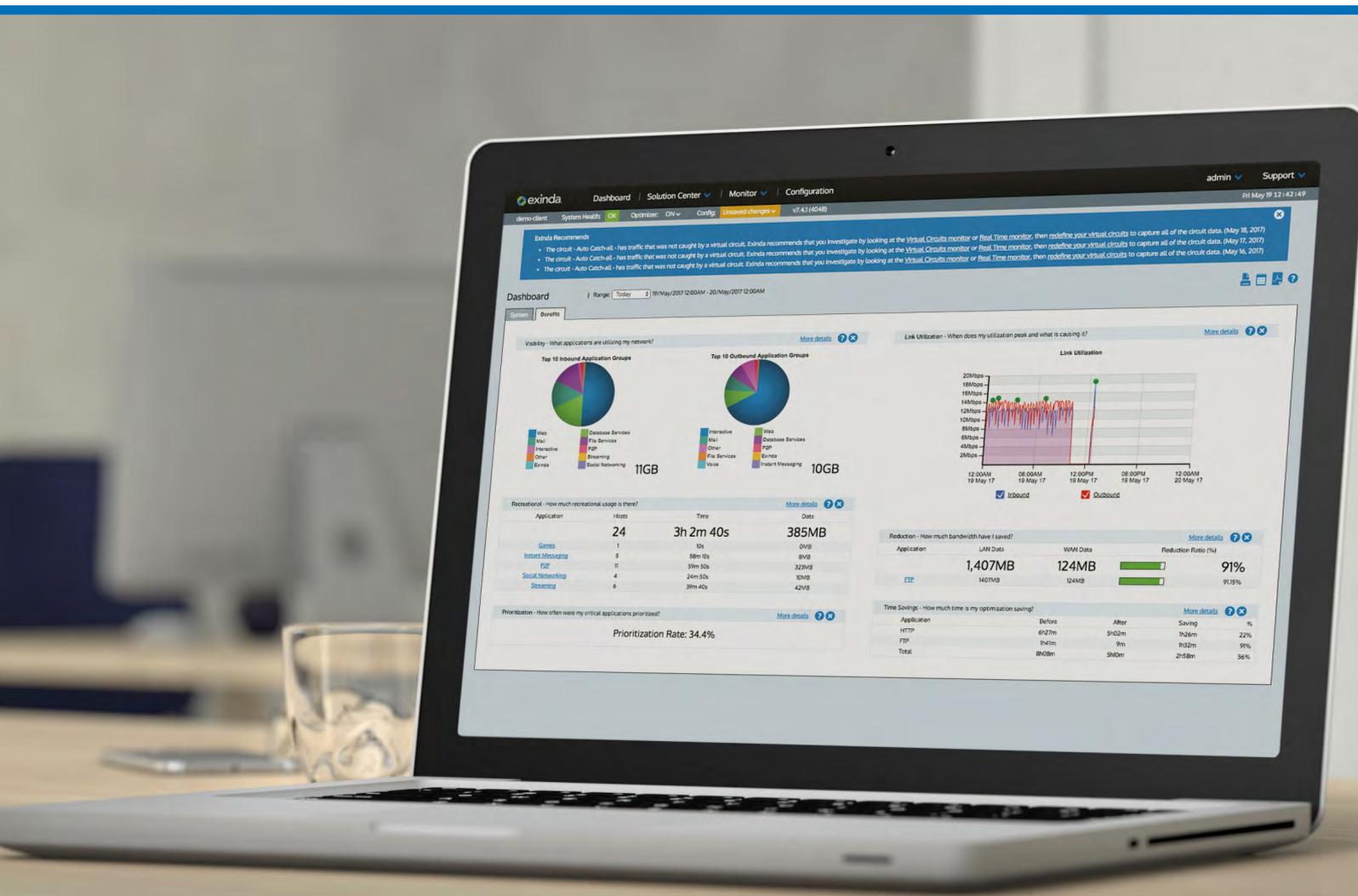


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Introduction

Network monitoring and management are critical business requirements. They maintain the security and availability of the applications and data organizations require to operate and compete. Modern network monitoring and orchestration tools provide improved efficiency and give you complete control over the status and performance of your network.

Exinda Network Orchestrator is a leading network management tool. It proactively monitors and continuously evaluates your network and its critical applications to mitigate network congestion, improve application performance, and ensure the highest quality user experience. It comes with a visually appealing dashboard that gives you quick and accurate information about the different aspects of your network in real-time. These include bandwidth consumption, recreational traffic usage, and the current level of network optimization to help you make informed decisions within the shortest time possible.



Improving network performance with Exinda

Exinda looks at network performance through a user-experience lens. It focuses on how people access and use critical business applications. It aims to improve the quality of experience while enhancing the performance, security, and efficiency of the network and its devices. In addition, Exinda also provides complete visibility of the entire network and an extensive reporting feature set.

Four key features of Exinda Network Orchestrator's appeal to network managers are:

- Real-time network performance monitoring
- Detailed breakdown of application traffic
- Automatic traffic orchestration
- Single application prioritization.

Exinda Network Orchestrator key features such as real-time network performance monitoring, breakdown of app traffic, automatic traffic orchestration and single app prioritization are used every day by many customers.

Unicoop Customer Story - Part I: Improving network performance

One such company is Unicoop Tirreno, one of the nine large consumer cooperatives in Italy and a member of the ANCC League of Cooperatives. With over 100 outlets in four regions and about 4,500 employees, this company caters to more than a million people across 29 sectors.

Such a widespread nature of operations made it necessary to have an exceptional network that supported critical business applications such as VoIP, electronic payment services, as well as other non-critical apps such as file transfers and SAMBA.

These different applications were competing for the same, limited network resources. This resulted in poor application performance that interfered with the operations of the business. After evaluating the possible solutions to their problem, Unicoop chose Exinda Network Orchestrator for its vast feature set, and the ability to control and manage all network activity without overloading the IT department.



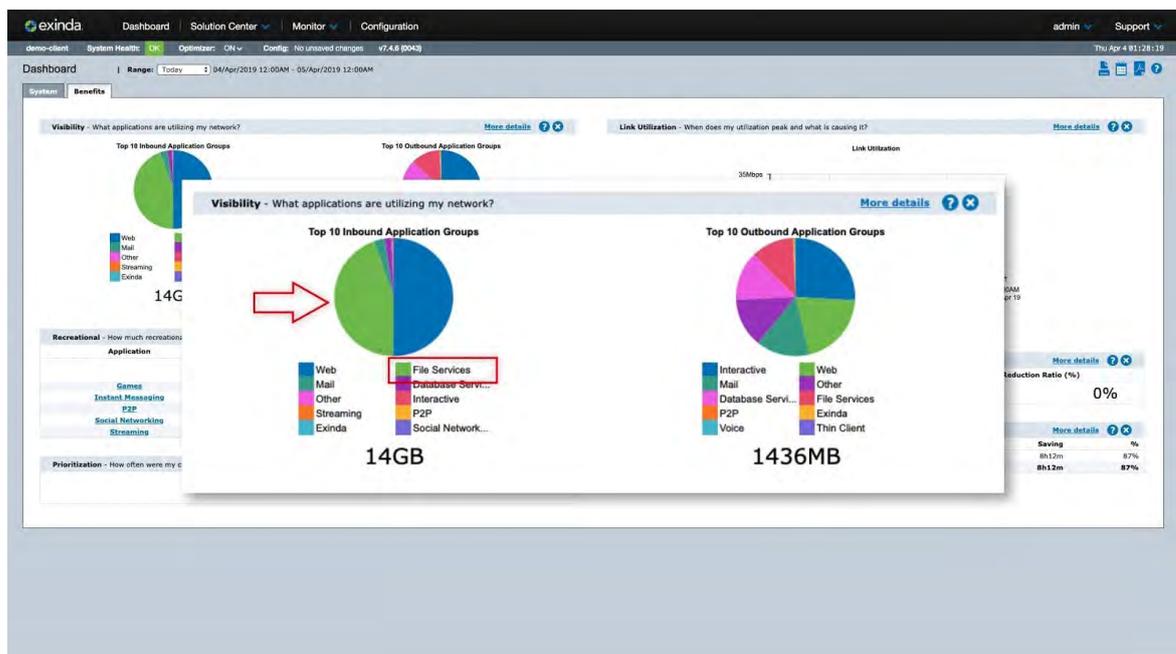
Real-time network performance monitoring

The Exinda dashboard displays the results of real-time and aggregated network performance monitoring data in a clear and actionable way. You get immediate insight into your network. With this, you can make decisions at the earliest possible moment when something happens.

The dashboard is divided into four quadrants to give you detailed information about the different aspects of your network usage.

1 Visibility quadrant

The visibility quadrant shows inbound and outbound traffic. This traffic is automatically grouped into different application categories to provide insights on what applications are currently running and how much bandwidth each is consuming. This will give you an immediate understanding of how your network's resources are used. You can click on the individual applications to know more about their historic bandwidth consumption as well.



It is clearly visible that file services – such as FTP – are consuming a significant amount of network bandwidth. By drilling deeper into the application group, it is possible to identify the exact application that is responsible for the bandwidth drain and remediate the issue.

2 Interactive link utilization quadrant

The visibility quadrant shows inbound and outbound traffic. This traffic is automatically grouped into different application categories to provide insights on what applications are currently running and how much bandwidth each is consuming. This will give you an immediate understanding of how your network's resources are used. You can click on the individual applications to know more about their historic bandwidth consumption as well.

3 Recreational quadrant

Having visibility into recreational applications is the first step in being able to manage them. The recreational quadrant aggregates and displays key application groups that are generally associated with the personal use of network resources. These applications are undesirable in most cases because they can impact the performance of key business applications, reduce the productivity of users, introduce viruses to the network and enable downloading of illegal or copyrighted material. Such detailed information helps to enforce the necessary policies and regulations to limit the use of recreational apps and to ensure that network resources are always available for business-critical applications.

Recreational - How much recreational usage is there? More details ? x			
Application	Hosts	Time	Data
	19	4h 50m 30s	1063MB
Games	1	10s	0MB
Instant Messaging	0	0s	0MB
P2P	11	1h 30m 10s	890MB
Social Networking	4	1h 21m 40s	52MB
Streaming	6	1h 58m 30s	120MB

P2P, social networking, and streaming applications are all consuming valuable network resources. By implementing the right policies, your organization can limit or possibly even curb the use of these recreational applications.

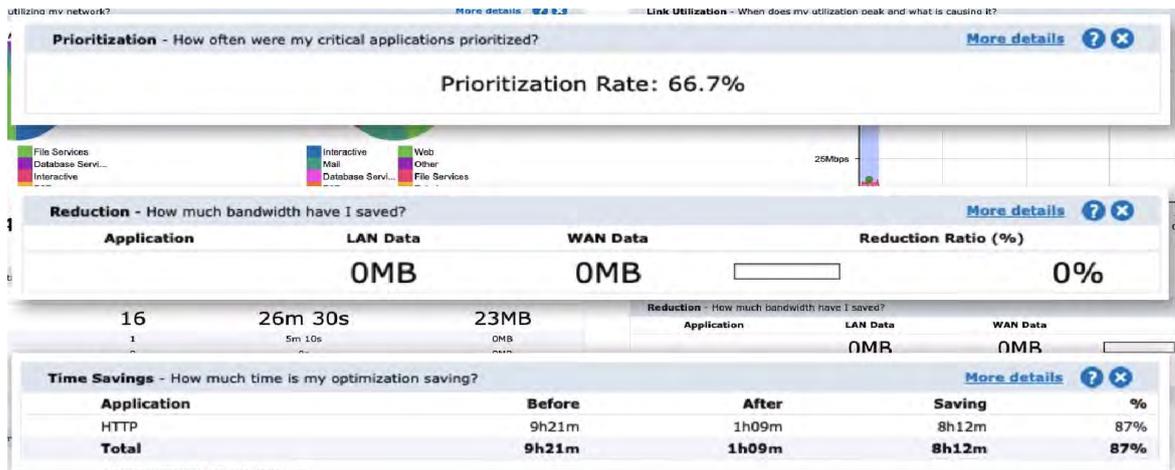
4 Prioritization, reduction, and time-savings quadrant

The prioritization, reduction, and time-savings metrics are grouped in the fourth quadrant, and together they provide insight into the current level of network optimization.

In general, a higher prioritization ratio indicates how often critical applications were prioritized. A high percentage means that the system is prioritizing more often to ensure the performance of your applications. A high percentage also means that by turning off optimization there is a higher probability that your critical applications will suffer.

The reduction value shows how much bandwidth was saved by removing redundant data from the network. Data previously seen by the system is cached and delivered from the local appliance rather than end-to-end from server to client resulting in a reduction in the amount of data sent across the network.

The time-savings table displays the improvement in transfer time due to WAN optimization. "Before optimization" is the time it would take to transfer the applications data without the benefit of Exinda WAN optimization technology. "After optimization" is the actual time it took to send the application data with Exinda WAN optimization technology.



It is clearly visible that multiple hours can be saved just by improving the data transfer times on the network. Think about how this benefit multiplies with hundreds or thousands of users taking advantage of the improved transfer times.

Unicoop Customer Story - Part II: Real time network performance monitoring

By using the four powerful quadrants of the Exinda dashboard, the IT administrators of Unicoop gained a clear understanding of their overall network health. The visibility quadrant provided them with a list of applications consuming the most bandwidth while the interactive link quadrant helped them understand the daily fluctuations in network usage and showed the critical traffic spikes that required further analysis.

Based on the uncovered information, management understood that there was enough bandwidth to support all the applications, so they decided against a WAN upgrade. A WAN upgrade alone would not help unless the right policies are in place to streamline the use of apps based on their criticality to the organization.

The interactive link quadrant, in particular, was helpful in understanding the precise network usage of different applications. The IT managers were able to discern that the anti-virus software was consuming too much bandwidth at the cost of business-critical applications like VoIP. Such an accurate analysis made it easy for the IT department to make the necessary policy changes that limit the maximum bandwidth available to the anti-virus software during business hours.



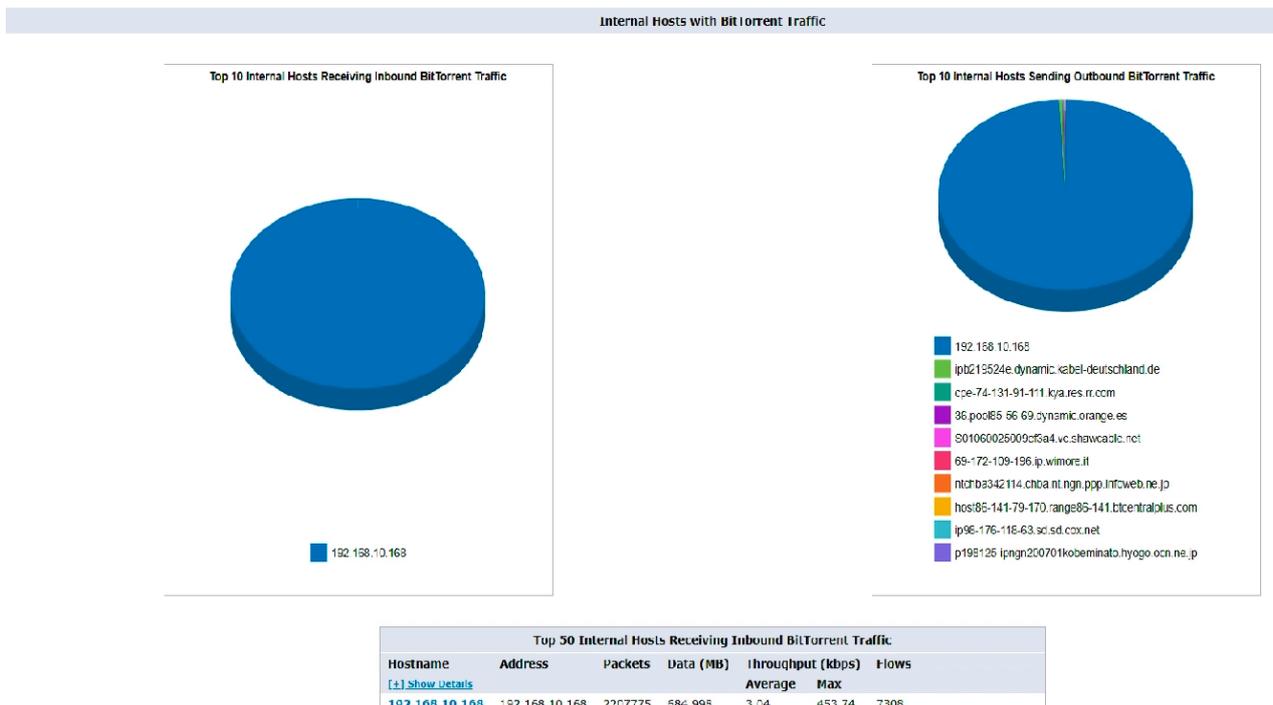
Detailed breakdown of application traffic

Knowing the detailed traffic patterns help to prevent unsanctioned traffic on your network. Today, IT organizations report that more than 90% of applications on their network are unsanctioned. This is not only a drain on the network's resources but also increases security vulnerabilities and through it, the possibility of a cyber-attack.

Unsanctioned applications create network congestion and may create compliance issues, especially when peer-to-peer applications like BitTorrent are abused. However, when you have a complete picture of application traffic patterns on your network at any given time, it's easy to set and enforce organizational policies that prevent their use.

Comprehensive information about unsanctioned applications is provided on the Exinda dashboard without any configuration whatsoever. Since the majority of unsanctioned applications fall into the recreational category, you can get a clear understanding of what applications are being used on your network by inspecting the recreational quadrant. By clicking on an application category, more details can be retrieved about the individual applications that belong to that category to help you further investigate.

For example, let us assume that the P2P category of apps in the recreational quadrant is using an unacceptable amount of bandwidth and you want to know which applications are responsible for this traffic. Clicking on the P2P category brings up the complete list of applications that belong to this category and shows the amount of traffic for each application along with the hostnames and IP addresses running that application.



The investigation uncovers that one of the biggest unsanctioned consumers of network bandwidth is BitTorrent and it is being used by only one user.

Armed with this information, you can define the necessary policies to restrict the use of any unwanted applications within the organization, or as a lighter intervention, simply limit the maximum bandwidth available to them.

This example demonstrates the complete control you have over what applications are allowed on the network and the bandwidth that is available to them.

Another key information for network security is to know which users are consuming unusually large amounts of bandwidth. For example, if a particular individual is using BitTorrent to send and receive large files, that activity should be further investigated to rule out unwanted or potentially illegal user behavior. With Active Directory integration, Exinda displays the names of employees instead of IP addresses and network IDs, a feature that makes it much easier to zero in on rogue employees.

Unicoop Customer Story - Part III: Application traffic breakdown

IT managers at Unicoop used the powerful traffic breakdown reports of Exinda to create a list of unsanctioned applications that were being used by employees on a regular basis. They reported their findings to the top management, where a decision was made to restrict the use of these applications. New organizational policies were defined and implemented to limit or ban the use of specific applications based on their impact on the network.

As a result, Unicoop ensured that network resources were being used optimally and only for business-related applications. With unsanctioned applications out of the way, business-critical applications were running faster and with greater efficiency.



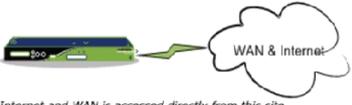
Automatic traffic orchestration

By definition, mission-critical applications require the highest priority when consuming network resources to ensure user satisfaction and high levels of productivity. But manually allocating resources to every single application within an organization is a cumbersome process. It takes a significant amount of time and effort, while an in-depth understanding of the bandwidth requirements of every application is also vital to configure the policies and set the correct priorities. The probability of human error is high in such a manual process, which makes this approach to bandwidth allocation inefficient and not recommended.

Exinda offers an intuitive wizard where you only have to answer a few questions about your network topology, whether you want to optimize and accelerate WAN applications, and more. After completing the steps, the system automatically orchestrates all the applications on the network based on industry best practices. For example, it may throttle back video streaming applications and allocate more resources to mission-critical applications like VoIP and mail.

Complete the optimizer wizard to install a default policy set.

Note: This wizard will delete all existing Optimizer Policies.

Optimizer Wizard	
Step 1: Do you want to start Optimization when this wizard is completed?	<input checked="" type="radio"/> Yes <input type="radio"/> No
Step 2: Do you want to configure new Optimization Policies? <i>Selecting YES will overwrite any existing policies you have configured.</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No
Step 3: Do you have asymmetric traffic? <i>Selecting YES will enable tcp-dual-bridge-bypass and monitoring-dual-bridge-bypass. Selecting NO will disable those settings. Selecting UNKNOWN will leave the settings as they are.</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown
Step 4: Do you want to enable Optimization? <i>Selecting YES will create policies that optimize and accelerate WAN applications. Note: You must have another Exinda appliance on the WAN for this to work.</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No
Step 5: Do you want to enable Control? <i>Selecting YES will apply traffic shaping.</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No
Step 6: Select the topology type WAN or WAN + Internet?	<input type="radio"/> WAN <input checked="" type="radio"/> WAN + Internet
 <p><i>Internet and WAN is accessed directly from this site.</i></p>	
Step 7: Enter inbound bandwidth (kbps)? <i>(MAX = 1024000)</i>	<input type="text" value="1024000"/> kbps
Step 8: Enter outbound bandwidth (kbps)? <i>(MAX = 1024000)</i>	<input type="text" value="1024000"/> kbps

■ Questions of the Exinda optimizer wizard

The screenshot displays the configuration interface for two virtual circuits. The top section is for 'Virtual Circuit 10 - WAN outbound (1024000 kbps to 'private net')'. It lists 12 application groups, each with a checkbox, an icon, a name, and a description of its optimization policy. Below the list, there is a 'Policy' dropdown menu set to 'ALL - Accelerate' and a 'Create New Policy...' button. The bottom section is for 'Virtual Circuit 20 - Internet inbound (1024000 kbps from 'ALL')', which also lists 12 application groups with similar details and an 'Actions' dropdown for each.

After the wizard is completed, the optimizer screen becomes the main control panel for every application group that is present on the network. It is possible to create separate virtual circuits with different policies for different branch offices or any other network segments that require it. Of course, manual fine-tuning of the policies is always an option, and it only takes a few clicks to edit one of the existing application groups or create a new one if necessary.

Once optimization is enabled, the changes become visible on the Exinda dashboard. This can then be used to review and confirm the positive effects of the newly established policies.

Unicoop Customer Story - Part IV: Automatic traffic orchestration

Thanks to the Exinda optimizer wizard, Unicoop managed to successfully orchestrate its network traffic with minimal effort. The wizard did most of the work while IT administrators only had to customize the priority of a few non-critical applications such as SAMBA, file transfers, and their antivirus software. With the new optimization policies in place, the quality of their VoIP connection immediately improved.

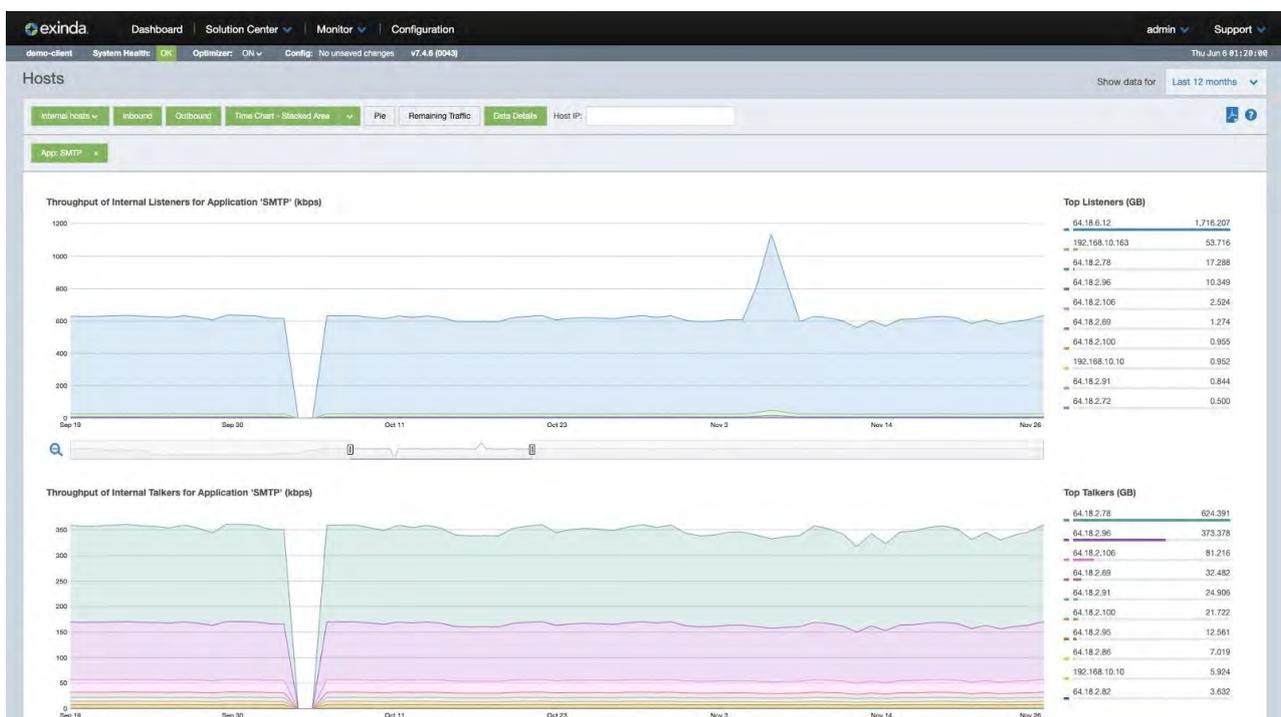
The optimizer wizard is a great example of how Exinda Network Orchestrator automates bandwidth management with high efficiency, and as a result leaves more free time for your IT department to focus on other important tasks.



Single application prioritization

Poor network performance is often caused by a handful of applications that seize most of the bandwidth for themselves. Exinda helps to identify these applications and understand their usage pattern within the organization.

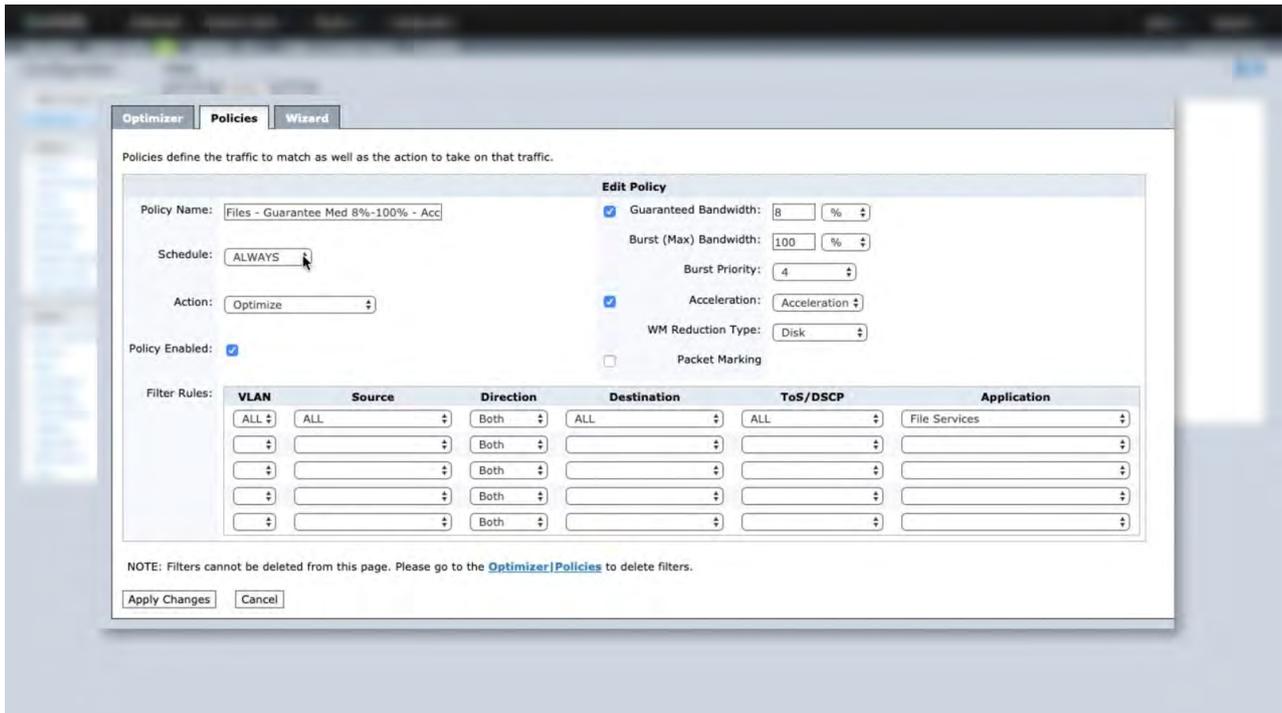
The Real Time Monitor screen provides a list of applications with their bandwidth usage, making it easy to identify the most likely applications impacting your network performance. Further investigation can be performed on the Applications Monitor screen where it is possible to filter down to specific date periods to look at peak usage data. The list of hosts also shows where the selected traffic emanates from. Finally, the Subnets screen can be used to pinpoint the network segment where you have to take action to remediate the problem.



The Applications Monitor screen allows you to analyze the data usage peaks and filter down to specific date periods

Once the network drain has been successfully diagnosed, the uncovered information can be clearly presented to top management. You can then make decisions about any policy changes to solve the issue.

Implementing a policy change in Exinda Network Orchestrator is a simple and straightforward process. You just have to navigate to the Configuration dashboard and edit one of the existing application groups or create a new policy if necessary. When editing a policy, there are a host of powerful options for you to select. By setting a schedule, you can limit a policy to only apply during work hours or after hours. A policy can optimize, block or re-direct traffic, and there are options to adjust the guaranteed bandwidth, the maximum bandwidth, and the burst priority for the currently selected application.



The Policy editor screen gives you complete control over the applications on your network. You can adjust the schedule, the action, the bandwidth limits, the burst priority, and more.

Unicoop Customer Story - Part V: Single application prioritization

When the IT administrators of Unicoop started analyzing their network, they found that the antivirus program was consuming close to 70% of the network's total bandwidth. By looking at the historic network usage data of the past one year it immediately became obvious that this was not a temporary event but an ongoing issue that had a continuous negative effect on the network. A decision was made to fix the problem by lowering the priority level of the antivirus program to ensure that critical applications always take precedence, but at the same time also keep the security protection provided by the antivirus.



Conclusion

Exinda Network Orchestrator is a feature-packed network and application performance management solution. Just these four features of Exinda give you new insights into your current network health and the potential to improve your users' experience by orders of magnitude. Exinda shines light on the dark spots of your network. With such knowledge, poor network performance becomes a thing of the past. The intuitive, easy to use administration interface will save hours for your IT department. With time saved, they can focus on other tasks instead of resolving network performance mysteries.

To learn more about the many powerful features of Exinda Network Orchestrator and understand how it can benefit your network performance, schedule a free live demo today.



[Schedule a FREE Exinda live demo](#)

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